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EXAMINER

DAO, THUY CHAN

ART UNIT	PAPER NUMBER
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2192

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/621,207	Applicant(s) GROVER ET AL.	
	Examiner Thuy Dao	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the amendment filed on November 12, 2008.
2. Claims 1-8, 10-15 and 17 have been examined.

Response to Amendments

3. In the instant amendment, claims 1, 10 and 15 have been amended.
4. The objection to specification is withdrawn in view of Applicant's amendments.
5. The 35 USC §101 rejection over claims 1-8, 10-15 and 17 is withdrawn in view of Applicant's amendments.

Response to Arguments

6. Applicants' arguments have been considered but are not persuasive. Claim 1 is the representative claim (Remarks, page 9).

a) Bowman-Amuah does not disclose every claim element (Remarks, pp. 11-13):

The Applicants focus arguments on issues:

“... Applicants submit that a ‘batch job’, as disclosed in Bowman-Amuah, is not an exception and does not imply an exception nor exception handling. Applicants respectfully point out that Bowman-Amuah refers to exceptions and exception handling in other portions of Bowman-Amuah and would have not have used the phrase ‘batch job’ to refer to an exception” (Remarks, page 12, lines 1-5, emphasis added).

As an initial matter, the examiner notes that Applicants' arguments (in the cited paragraph above and all other locations) did not direct to the ground of rejection.

As clearly set forth in page 5 of the previous Office action mailed August 13, 2008, the claimed limitation “an exception that occurred for a programming task” was equated with “Batch jobs exceptions”, but not “batch job” as argued by the Applicants:

a recovery agent for taking an action upon an occurrence of an exception that occurred for a programming task (e.g., FIG. 55, col.193: 41 – col.194: 34; col.93: 24-50),

wherein the action is performed outside of a debugging operation (e.g., FIG.10, Base Services with Batch jobs, col.31: 57 – col.32: 38; FIG. 28, Batch jobs exceptions are handled outside a debugging operation, col.106: 65 – col.109: 34);

and the claimed limitations “the exception handler and the recovery agent” were equated with the exception handling and recovery components of said batch jobs:

wherein the exception handler and the recovery agent run on a first system (e.g., col.16: 14-33; FIG. 55, col.193: 42 - col.194: 34; FIG. 28, batch job exception handling and recovery components, col.106: 65 – col.109: 34)

Accordingly, Applicants’ arguments fail to comply with 37 CFR 1.111(b). The reply by the applicant or patent owner did not distinctly and specifically points out the supposed errors in the examiner’s action and did not reply to every ground of objection and rejection in the prior Office action. A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section.

b) Bowman-Amuah does not disclose the claimed elements as arraigned by Applicants’ claims (Remarks, pp. 13-15):

The Applicants continued asserted,

“...As argued above, Applicants submit that exceptions and exceptions handling are not batch jobs. While Claim 1 is cited as an example, Claims 10 and 15 have features similar to Claim 1 and the instant Office Action relies on the same portions of Bowman-Amuah for the similar features. Therefore, because the different

portions of Bowman-Amuah cited by the instant Office Action are separated by numerous pages and disclose different embodiments of the invention, Applicants submit that Bowman-Amuah does not disclose Applicants' invention as arraigned by the Claims" (Remarks, page 15).

As addressed in paragraph (a) above, the claimed limitation "exceptions" has been equated with "batch job exceptions" and the claimed limitation "exceptions handling" has been equated with "batch job exception handling and recovery components". Applicants' arguments failed to distinctly and specifically point out the supposed errors in the examiner's action and did not reply to every ground of objection and rejection in the prior Office action.

In conclusion, the examiner respectfully maintains ground of the 35 USC §102 rejection over claims 1-8, 10-15 and 17.

Claim Rejections – 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-8, 10-15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowman-Amuah (art of record, US Patent No. 6,339,832).

Claim 1:

Bowman-Amuah discloses *an exception handling mechanism stored in one or more computer-readable storage devices, said exception handling mechanism comprising:*

an exception handler for recording exception information (e.g., FIG. 145, exception response table, col.262: 61 – col.263: 67; col.264: 45 – col.265: 33)

dependant on types of exceptions and programming tasks that encounter exceptions (e.g., FIG. 143, sheet 87, each type of exception A-C has each handling logic A-C, col.260: 54 - col.261: 37; col.263: 28-67; col.264: 9-44; col.265: 61 - col.266: 56); and

a recovery agent for taking an action upon an occurrence of an exception that occurred for a programming task (e.g., FIG. 55, programming classes and sub-classes of batch jobs (programming task), col.193: 41 – col.194: 34; col.93: 24-50),

wherein the action is performed outside of a debugging operation (e.g., FIG.10, Base Services with Batch jobs, col.31: 57 – col.32: 38; FIG. 28, Batch jobs exceptions are handled outside a debugging operation, col.106: 65 – col.109: 34);

wherein the action to be taken upon the occurrence of the exception corresponds to a type of exception and a programming task (e.g., col.260: 54 – col.261: 37; col.263: 28-67; col.264: 9-44), and

includes one or a combination of restarting the programming task, terminating the programming task (e.g., col.30: 12-18; col.92: 38-47; col.98: 24-34, restarting and/or terminating batch jobs),

resetting a system running the programming task, and disregarding the exception (e.g., col.108: 36-59; col.188: 23-51; col.260: 66 – col.261: 41),

wherein the exception handler and the recovery agent run on a first system (e.g., col.16: 14-33; FIG. 55, col.193: 42 - col.194: 34; FIG. 28, batch job exception handling and recovery components (first system), col.106: 65 – col.109: 34)

that operates autonomously and the first system is embedded in a second system (e.g., FIG. 10, col.31: 57 – col.32: 38, batch job exception handling and recovery components (first system) are embedded in main framework and/or base services (a second system); col.264: 45 – col.265: 33; col.294: 66 – col.295: 20).

Claim 2:

The rejection of claim 1 is incorporated. Bowman-Amuah discloses *the recorded exception information associated with an exception is associated with a signature for identifying the recorded exception information with its associated exception* (e.g., col.262: 61 – col.263: 67; col.260: 54 – col.261: 37).

Claim 3:

The rejection of claim 2 is incorporated. Bowman-Amuah discloses *the signature includes a version of a program running the programming task* (e.g., col.93: 24-50; col.193: 41 – col.194: 34).

Claim 4:

The rejection of claim 1 is incorporated. Bowman-Amuah discloses:
a plurality of sets of exception information for a plurality of exceptions is maintained in the system running the programming task (e.g., col.92: 38-47; col.98: 24-34; col.188: 36-51);
each set of exception information being associated with a signature for identifying that set of exception information (e.g., col.98: 24-34; col.193: 42 – col.194: 34).

Claim 5:

The rejection of claim 1 is incorporated. Bowman-Amuah discloses *the recorded exception information associated with an exception is associated with a signature for identifying the format of the exception information* (e.g., col.264: 9-44; col.265: 61 – col.266: 56).

Claim 6:

The rejection of claim 1 is incorporated. Bowman-Amuah discloses *the recorded exception information includes data related to a program stack, including data to reconstruct the program stack at time of exception* (e.g., col.16: 14-33; col.106: 65 – col.109: 34).

Claim 7:

The rejection of claim 1 is incorporated. Bowman-Amuah discloses *an analysis tool communicating via an interface with the system running the programming task, for identifying causes of the exception* (e.g., col.264: 9-44; col.265: 61 – col.266: 56).

Claim 8:

The rejection of claim 7 is incorporated. Bowman-Amuah discloses *the analysis tool uses a version to match the object code of a program running the programming task to the source code of the program* (e.g., col.31: 57 – col.32: 38; col.264: 45 – col.265: 33).

Claim 10:

Bowman-Amuah discloses *a processing system stored in one or more computer-readable storage devices, said processing system comprising:*

a first system (e.g., FIG. 10, col.31: 57 – col.32: 38; framework and/or base services; col.264: 45 – col.265: 33; FIG. 55, col.193: 42 – col.194: 34);

an autonomous second system embedded in the first system (e.g., FIG. 28, col.106: 65 – col.109: 34; batch job exception handling and recovery components (second system); col.264: 45 - col.265: 33);

an exception handler running in the second system for recording exception information upon an occurrence of an exception in the second system (e.g., FIG. 145, col.262: 61 – col.263: 67; col.264: 45 – col.265: 33); *and*

a recovery agent running on the second system (e.g., FIG. 55, col.193: 41 – col.194: 34, batch job recovery component; col.93: 24-50),

for taking an action upon the occurrence of the exception based on the recorded exception information, wherein the action is performed outside of a debugging operation (e.g., FIG. 143, col.260: 54 – col.261: 37; FIG.10, Base Services with Batch jobs, col.31: 57 – col.32: 38; FIG. 28, Batch jobs exceptions are handled outside a debugging operation, col.106: 65 – col.109: 34););

wherein the action corresponds to a type of exception that occurred in a programming task (e.g., col.264: 9-44; col.265: 61 – col.266: 56; FIG. 55, programming classes and sub-classes of batch jobs (programming task), col.193: 41 – col.194: 34; col.93: 24-50).

Claim 11:

The rejection of claim 10 is incorporated. Bowman-Amuah discloses *an analysis tool for receiving, via an interface, the recorded exception information from the second system and for identifying the cause of the exception (e.g., FIG. 55, col.193: 41 – col.194: 34; col.92: 38-47; col.260: 54 – col.261: 37).*

Claim 12:

The rejection of claim 10 is incorporated. Bowman-Amuah discloses *the second system includes nonvolatile memory for storing exception information (e.g., col.262: 61 – col.263: 67; col.106: 65 – col.109: 34; col.193: 42 – col.194: 34).*

Claim 13:

The rejection of claim 12 is incorporated. Bowman-Amuah discloses *the exception information stored in the non-volatile memory is compressed (e.g., col.264: 45 – col.265: 33; col.31: 57 – col.32: 38).*

Claim 14:

The rejection of claim 12 is incorporated. Bowman-Amuah discloses *the exception information stored in non-volatile memory includes a plurality of sets of exception information, each set being associated with an exception and a signature (e.g., col.193: 41 – col.194: 34; col.93: 24-50; col.265: 61 – col.266: 56).*

Claim 15:

Bowman-Amuah discloses *a computer-readable storage device having stored thereon a computing system comprising:*

an exception handler for recording exception information on non-volatile memory upon an occurrence of an exception (e.g., FIG. 145,col.262: 61 – col.263: 67; FIG.10, Base Services with Batch jobs, col.31: 57 – col.32: 38; FIG. 28, Batch jobs exceptions are handled outside a debugging operation, col.106: 65 – col.109: 34);

a recovery agent for taking an action upon the occurrence of the exception (e.g., FIG. 55,col.193: 41 – col.194: 34; col.16: 14-33; FIG. 55, col.193: 42 - col.194: 34; FIG. 28, batch job exception handling and recovery components, col.106: 65 – col.109: 34)

based on the recorded exception information, wherein the action is performed outside of a debugging operation (e.g., FIG. 143, col.260: 54 – col.261: 37; FIG. 28, Batch jobs exceptions are handled outside a debugging operation, col.106: 65 – col.109: 34); and

an analysis tool for identifying the cause of the exception (e.g., col.263: 28-67; col.264: 9-44; col.265: 61 – col.266: 56);

wherein the analysis tool receives the exception information from the nonvolatile memory via an interface interfacing a first system and a second system running the exception handler (e.g., col.106: 65 – col.109: 34; col.264: 45 – col.265: 33; col.193: 42 – col.194: 34) and the recovery agent (e.g., col.16: 14-33; FIG. 55, col.193: 42 - col.194: 34; FIG. 28, batch job exception handling and recovery components, col.106: 65 – col.109: 34)

wherein the second system (batch job exception handling and recovery components) is embedded in a third system and the second system operates autonomously of other systems (e.g., FIG. 10, col.31: 57 – col.32: 38; main framework, base services, batch job components (third system), batch job exception handling and recovery agents (second system) operates autonomously; col.106: 65 – col.109: 34).

Claim 17:

The rejection of claim 15 is incorporated. Bowman-Amuah discloses *the recorded exception information includes data related to a program stack* (e.g., col.10: 45 - col.12: 49; col.16: 14-33).

Conclusion

9. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/

Examiner, Art Unit 2192

/Tuan Q. Dam/

Supervisory Patent Examiner, Art Unit 2192